Emergent Urbanizations

New Territories of Urban/Agrarian Transformation in the Global South

Tuesday 9th May 2019 9:00am–5:30pm, Gund Hall, Porticos 122
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Urban Theory Lab Research Practicum
Harvard GSD Spring 2019

New patterns and pathways of urbanization are emerging around the world and require a radical rethinking of inherited approaches to urban theory and research. One site of such transformations is the urbanization of the hinterland / countryside, and the concomitant remaking of inherited agrarian environments across much of the global South. In these zones, as elsewhere, post-1980s processes of sociospatial restructuring have involved the transformation of agrarian sociospatial relations, land use systems and political ecologies through new forms of enclosure/land-grabbing, large-scale infrastructure investment, industrial development and financial speculation, often in close proximity to or in direct relation to processes of city building. Their investigation thus requires scholars to rethink inherited disciplinary divisions of labor (e.g. urban studies vs. agrarian studies) and sociospatial binarisms (e.g. urban/rural; city/countryside; industrial/agrarian; society/nature).

Against this background, this research seminar has sought to explore the limits of inherited theoretical frameworks for the study of urbanization processes, while also elaborating alternative conceptualizations to decipher emergent conditions and transformations, especially in agrarian environments undergoing major industrial, infrastructural and ecological transformations. Our work is oriented simultaneously towards the analysis of emergent patterns and pathways of urban-agrarian-industrial restructuring and the elaboration of appropriate theories, concepts and cartographies through which to decipher the latter. Our major research foci are strategic zones of the global South—especially in the so-called “BRICS (the rapidly industrializing territories of Brazil, Russia, India, China and South Africa)—and a range of emergent agrarian-urban transformations that have crystallized within and across the transnational production networks associated with those zones.
SCHEDULE

9:00-9:15am | Introduction by instructors

9:15-10:15am | Sugar and Rice
   – “From Farm to Favela: Examining the Role of Sugarcane in Brazil’s Urbanization,” by Stefano Trevisan and Sarah Zou.

10:30-11:30am | Desakota regions and Specialized Agrarian Industrial Districts
   – “Trading on Terroir: Fostering Artisanal Cheese and Alcohol Production through Specialized Agrarian Industrial Districts,” by Mariel Collard and Stefan Norgaard.

11:45am-12:45pm | Precision agriculture and nitrogen fertilizer

2:00-3:00pm | Livestock and palm oil
   – “Cattle, Culture and Capital: Patterns of urbanization and dispossession in India and Brazil,” by Evan Hazelett and Ayesha Mehrotra.
   – “Smallholder development and extractive logics: Understanding the rise of plantation alternatives in the neoliberal era,” by Rui Su and Géraud Bablon.

3:15-4:15pm | Corridor urbanization and agrarian logistics networks
   – “Corridor Urbanization: Political Discourses, Illegal Realities: The agro-urban reconfigurations along the Brazil-Peru Interoceanic Highway,” by José Carlos Fernández and Samantha Saona.

4:30-5:15pm | Roundtable discussion
From Farm to Favela: Examining the Role of Sugarcane in Brazil’s Urbanization
Stefano Trevisan and Sarah Zou | 9:15 - 10:15am

The dominant story of urbanization in Brazil is one of mass migration from rural states to large metropolitan cores like Rio de Janeiro and São Paulo. Narratives often focus on the rise of so-called “informal settlements” (i.e. favelas) that emerge as a result of farmers chasing economic opportunity and municipal governments then failing to accommodate rapidly increasing populations. However, such urban-centric narratives of “urbanization” in Brazil render invisible the forced displacement of manual laborers in traditional, agricultural regions and the disruption of their means of social reproduction. Urbanization is not a simple process of city-focused concentration, but is, instead, a complex process of economic extension intimately tied to state-sponsored industrialization and capitalist transformations that span both “rural” and “urban.”

Brazil, the largest producer and largest exporter of sugar in the world, has been tied to sugarcane cultivation since its colonial foundations 500 years ago. As such, sugarcane is a useful vehicle through which to understand and track ongoing spatial transformations tied to various economic regimes, specifically the neoliberal age post-1990s. Two Brazilian states that best exemplify these variegated socio-economic transformations across the nation are Pernambuco (in the northeast) and São Paulo (in the southeast). Sharing similar origins as leading sugarcane plantation capitancies, these two states have more recently become a rural origin and an urban destination for landless sugarcane farmers. In Pernambuco, we are seeing displacement, depeasantization, and disruption of social reproduction. In São Paulo, we are seeing economic growth, population agglomeration, and increased integration into the urban wage nexus.

In examining the transformation of sugarcane cultivation in these two states, we aim to trace how specific state-led policies prioritizing export-oriented economic development, mechanization, and ethanol production have led to systematic displacement and depeasantization of sugarcane farmers in northeast Brazil in favor of southeastern states.
Increasing agro-industrialization of sugarcane farms is deeply tied to the growth of favelas in São Paulo.
Rice Optics: Water, Markets and Female Labor in Emergent Rural-Urban Topographies of Vietnam and Nigeria
Malika Leiper and Ryan Thomas | 9:15 - 10:15am

What does it mean to live in a world where 42 per cent of Benin’s rice, is imported from Thailand and the Philippines? And how do we account for the fact that, since the 1960s, African consumption of rice has increased at an average annual rate of 4.4 per cent – two times faster than the rest of the world – yet Africa’s domestic rice sector continues to fall short of this demand?

All great waves of capital accumulation have unfolded through a greatly expanded ecological surplus, manifested in cheap food, cheap energy and cheap inputs. Rice’s paramount role as a staple crop for more than half of the world’s population, located in rapidly urbanizing territories, positions this commodity as a lens through which to chart a narrative of combined and uneven development over the long durée and into the contemporary context. We situate our inquiries in the Mekong Delta and West Africa, paying particular attention to Vietnam and Nigeria as key sites of transformation.

Both lower middle-income countries with legacies of colonialism and a majority of their populations under the age of thirty, a comparative analysis through the lens of rice reveals a set of actors at various scales working within and between public and private channels to facilitate the flow of capital. Critical deviations in the trajectory of rice production between Vietnam and Nigeria demarcate a market-driven versus state-oriented approach to intensification, which depends on several factors: hydraulic infrastructure, agrarian policy, farm technology, and commercial drivers.

In both cases, urbanization and increasing agricultural efficiency entail a declining ratio of farmers to non-farmers – but how do we articulate the spatial manifestations of these social transformations? A gendered perspective, we argue, is a necessary starting point for conceptualizing emergent urban-rural topographies and their future trajectories.
People in the northern Nigerian city of Maiduguri gather along the seasonal Ngadda River, which feeds into Lake Chad. Major dam and irrigation projects are drying up the wetlands that sustain life in the arid Sahel region of Africa. The result has been a wave of environmental refugees, as thousands of people flee to nearby urban centers, or further away onto boats to Europe. Source: Stefan Heunis, Getty images.
Desakota: A Politically Calculated Spatial Configuration of Urbanization
Ziwei Zhang and Kuangyu Xiong | 10:30 - 11:30am

Different from the western megalopolis model, the separation between rural and urban activities is largely dissolved in Asia. Desakota is a term coined to describe a special region mixed with intense agricultural and non-agricultural activities outside urban cores in Asia. While the lack of administrative clarity, weak governance, and land conflicts in Desakota are widely critiqued by scholars, this paper argues such chaos and ambiguity are, in fact, politically-calculated spatial strategies to govern economic activities and direct labor movements. The comparison with the urban fringe in Latin America shows the unique historical formation of Desakota in Asia and its significance for agricultural surplus labor management. The making of space and the restructuring of social dynamics are always intertwined within statecraft. It is the ambivalence of urban and rural in Desakota that provides the political possibility for the transformation in both the means of social reproduction of peasant class and the relationship between agricultural/industrial sector. The case of China is employed to illustrate how the mutating role of Desakota parallels with the post-1980 changes in rural/urban relations.
Intensive activity in the non-urban, farmland area. Image from NASA earth observatory, 2016 night lights map.
Trading on Terroir: Fostering Artisanal Cheese and Alcohol Production through Specialized Agrarian Industrial Districts
Mariel Collard and Stefan Norgaard | 10:30 - 11:30am

We conceptually interrogate the Specialized Agrarian Industrial District (SAID), a bounded zone producing specialized agricultural products, with vertically disintegrated producers, localized-producer networks, and institutional arrangements and inter-firm relations that resist international divisions of capital and labor. We ask: what characteristics are associated with “successful” SAIDs? Are SAIDs’ production processes and final products only compatible within modern agro-industrial mass production? What are SAIDs’ social and ecological consequences?

We argue that three critical characteristics enable SAIDs: (1) regulatory and institutional arrangements, including regulations and specific “denominations of origin,” allowing producers to develop and exchange localized knowledges; (2) landed property regimes and regimes’ recombinant legacies of agrarian reform, collective ownership, protected nature, or cultural/touristic heritage; (3) specific terroir, or biophysical geographies, with climate, topography, and soil features suited for the material properties of specific commodities.

Our research engages four commodities and geographies: cheese in the Franche-Comté, France and Minas-Gerais, Brazil; and alcohol in South Africa’s Cape (wine) and Jalisco, Mexico (mezcal). Alcohol and cheese’s material and biophysical properties lend themselves to SAIDs’ political/institutional construction.

We consider central theoretical and political concerns with SAIDs’ current structure: SAIDs are bounded, with exclusionary local-production zoning, privileging insiders over “outsider” smallholders. Within SAIDs, concerning practices include “informal” and/or exploited labor; a focus on SAIDs alone obscures wider circuits of labor migration to and from SAIDs, from other regions experiencing depeasantization. Mediating nation-state regulations and policies disproportionately affect long-marginalized communities, including indigenous populations. Additionally, agro-industrial mass producers may coopt or buy-out SAIDs, or imitate SAIDs’ consumer appeals.

Yet optimistically, when they include worker cooperatives and environmentally sustainable local-production practices, SAIDs offer regional developmentalism, brokered capital-labor relations, and quality (not “cheap”) food. SAIDs cannot be created wholesale, yet they can be encouraged, fostered, and enabled. Actors seeking disarticulation from vertically integrated agro-industry will find much to gain from SAIDs.
1. Queijo Canastra in Brazil  
2. Fromage Comté in France  
3. Mezcal in Mexico  
4. Wine in South Africa
The rapid ascendancy of global technology mega-firms and new forms of capitalist accumulation has been primarily analyzed by critical scholars in its “urban”—that is, non-agrarian—permutations. However, technologization is emerging as a key vector by which agrarian zones in the Global South are reconfigured by capitalism in the 21st century. So-called digital agriculture (DA) is a heterogeneous suite of informational methods for improving the efficiency and yield of agricultural land. Like the Green Revolution before it, however, one use of DA is to maintain unjust and ecologically destructive forms of production and lasso farmers into globalized commodities markets. Indeed, the ongoing enclosure of the agrarian knowledge commons is a data-grab that further locks in agrarian hinterlands as operational landscapes that support a rapidly expanding urban system. We analyze DA’s role in this process through a new concept of computational capital; that is, the complex and resource-heavy infrastructure needed to process unimaginably large volumes of raw data into actionable knowledge. We argue that DA and computational capital are being deployed as the long-sought “third technological fix” needed to perpetuate the regime of cheap food. However, DA data is also a medium for financiers to assess risk and speculate on land and commodities from urban financial hubs: thus, we draw out connections between DA, data science, and financialization. Finally, we dive down to the sites of DA deployment themselves, and analyze the ways that in some locales the implementation of DA may support ongoing transformations of land ownership that sedate local resistance to the domination of transnational agribusinesses. However, not all is lost: in fact, the rise of DA presents opportunities—however narrow—for farmers in the Global South to take ownership of the means to their own subsistence. We conclude by identifying ways forward, through community platforms and open-source forms of information sharing.
Kilocalorie delivery ratio describes the proportion of agricultural output directly consumed by people; higher value zones feed more mouths. The overlay of this ratio and submarine cables illustrates the central contours of global capitalism. Most areas with the high delivery ratios are also proportionately less connected to global information flows.
Large-scale industrialized agriculture today overshadows formerly dominant organic farming strategies and is made possible by the production and use of synthetic fertilizer due to its catalytic impact on crop yield and maturity. The three nutrients (nitrogen, potassium, and phosphorus) that compose synthetic fertilizer pose significant consequences and rifts. We have focused our research on synthetic nitrogen fertilizer, because it alone accounts for 60% of all fertilizer consumed in the world (Weis 319) and differs from the other nutrients in how it is produced.

We apply the frameworks of metabolic rift and the resultant fertilizer treadmill conceived in the late 19th and early 20th century by Marx, Liebig, and Kautsky to understand the remarkable dominance of the production, dependence, and narrative of synthetic fertilizer across the world today. In the decades since the 1960s, this growth treadmill has underpinned corporate and state strategies and has manifested itself in increasing use volume, market consolidation, uneven global dependence, cultural acceptance, displacement, ecological degradation, chemical complexity, and climate change acceleration. In other words, each of these areas that form part of the growth of fertilizer forms positive feedback loops or treadmills, self-replicating and ultimately leading to the increasingly unstable operationalization of agrarian landscapes and distance from sustainable agriculture.
The three billion dollar Iowa Fertilizer Company’s nitrogen production plant in Wever, Iowa was built in 2017.
Cattle, Culture and Capital: Patterns of urbanization and dispossession in India and Brazil
Evan Hazelett and Ayesha Mehrotra | 2:00 - 3:00pm

The Brazilian cattle industry has a long history in the Amazon, exacting various forms of dispossession, land and farm consolidation, and ecological devastation, inducing migration and making labor vulnerable to exploitation. The industry has the longstanding support of government through mechanisms designed to privilege the ruling classes at the expense of all others. Throughout this contentious history, the Amazon has seen extended and recombinant urbanizations across geographies and scales, generating violent conflicts between resistance movements and government.

India has a very different relationship to its cattle industry, which is disaggregated into the beef industry, the dairy industry, and the leather industry. Culture plays an outsized role in popular and state support (or lack thereof) for the leather and beef industries, and recent populist movements have pitted economic gains against religious beliefs. Conversely, the dairy industry has benefited from immense state support. The National Dairy Development Board’s 1970-1996 ‘Operation Flood’ program catalyzed the “White Revolution” of dairy production in India so that by the late 1990s, India had surpassed even the United States in dairy production, becoming the top dairy generator in the world. Dairy has since played a stabilizing role for farmers in India.

Brazil and India are two of the globe’s leading producers and exporters of cattle products. In both sites, the industries have altered spatial fabrics profoundly. In particular, we see a triad of culture, capital, and land informing and being informed by the practices of the cattle industry, and subsequently shaping patterns of urbanization. This research seeks to better understand how the relationship between the cattle industry and this triad has influenced urbanization, dispossession, and ecological degradation in Brazil and India. We examine how Hindu cultural beliefs have been articulated onto economic systems in India and how land grabs have caused disarticulation in Brazil to better understand changes in capital and spatial processes in both nations from the late 20th century into the present.
Since coming to power in 2014, Prime Minister Narendra Modi’s government has increased protections for cows while the nation has seen increased violence against Muslims and low caste Hindus believed to be involved in beef slaughter or consumption.
Smallholder development and extractive logics: Understanding the rise of plantation alternatives in the neoliberal era
Rui Su and Géraud Bablon | 2:00 - 3:00pm

Palm oil is found in half of the products in a grocery store, from soap to chocolates. The cheapest vegetable fat to produce, it is on a trajectory of booming growth as consumer habits tend towards processed goods in large industrializing nations. With high start-up costs, and complicated logistics requirements given the fruit’s extremely short shelf-life after harvesting, oil palm has since the start of the 20th century been cultivated in vast monoculture plantations. Highly capitalized, with very low labor density, plantations impose an extreme agro-industrial order on the landscape together with consistent land rights and labor violations and ecological violence. In the 1970s, developmentalist regimes in the tropics began to experiment with arrangements that granted local or migrant villagers small plots of land planted with oil palm, and a mill to sell their produce to.

In Indonesia, the terms of these arrangements gradually shifted in the following decades as they were privatized, to the detriment of the smallholders they had brought in; the descendents of these schemes today are almost unrecognizable from corporate plantations, granting dividends in addition to wages to the farmers involved. But at the same time as smallholders attached to schemes have lost autonomy, a new class of independent smallholders has taken foot, representing today the fastest-growing production.

In Colombia, the history of small growers represents a persistently violent trajectory motivated by the ostensibly paternalistic state intertwined with capitalist interests. Since the 1990s, the government, while nominally recognizing the collective land titles for Afro-Colombians previously displaced by armed conflicts and the drug trade, has forced them into “strategic alliances” with agribusiness in the palm oil industry to increase economic revenue. The imposition of such smallholder scheme has not only exacerbated the precarity of people’s livelihood due to monocropping, but also stifled their cultural and social reproduction. However, the implementation of smallholder oil palm cultivation as a development strategy was by no means thorough, as oil palm proved to be a poor substitute for coca.

The two cases complicate the popular narrative that hails smallholders as the key to poverty reduction and local empowerment. Rather, smallholder arrangements, as they continuously mutate across geographies, display multifaceted relations with agro-industrial logics.
Palm oil plantation, image assembled by Rai Su and Géraud Bablon.
Corridor Urbanization: Political Discourses, Illegal Realities. The agro-urban reconfigurations along the Brazil-Peru Interoceanic Highway.

José Carlos Fernández Salas and Samantha Saona | 3:15 - 4:15pm

This research project aims to use the notion of corridor urbanization to analyze the effectiveness of logistics corridors in accomplishing the spatial connection and economic benefits announced by their advocates. Taking the case of the Initiative for Infrastructural Integration of the South American Region (IIRSA) – specifically the Interoceanic Highway that has already been built between Brazil and Peru – we argue that the anticipated trade and development benefits have not materialized and that the project was rather part of a political discourse intending to create power and economic connections at the regional scale. Not only is the bulk of the commerce between Brazil and Peru still through maritime routes, but the inland connection between the two countries has intensified in its illegal dimension through the flow of products such as cocaine. In this sense, the IIRSA is creating a new grid of infrastructure and large-scale investments that, rather than opening opportunities for development, is reconfiguring the settlements along the corridor and the relationship between cities and their hinterland. Thus, the concept of corridor urbanization is useful in challenging the notion of urbanization as centrality to also encompass the political economy of logistics and the instrumentalization of the hinterland through infrastructure that connects metropolises and extraction nodes, as well as the consequences in the communities living along these corridors (Balakrishnan 2013: 785). In sum, we argue that the corridor urbanization framework breaks with a purely urban view of metropolises and requires a more nuanced reflection on these extended urban dynamics (Brenner, 2017: 201). With this objective, we will make a parallel between soybean and cocaine as two commodities that create legal and illegal relations of interdependency between metropolises and hinterlands, and, at the same time, reconfigure the land practices of the settlements along the connecting corridors. We will explore this through two scales of analysis: (i) the political and financial structures that are involved in the development of corridors and (ii) the granularity of the local consequences of these infrastructure projects.
Illegal commodities’ flow through the interoceanic corridor. A coca-producing valley in Peru as the hinterland of the drug-consuming metropolises in Brazil and the cocaine world market.
The global agrarian-urban process under the international logistics system: A case study of China and Brazil soybean trade
Renyi Zhang and Zijing Wang | 3:15 - 4:15pm

In the study of the emerging national issues resulted from the global commodity chain, we launch our research from three theoretical stances: The Global Commodity Chain, Deforestation, and Depeasantization. With these three basic theoretical instructions, we will anchor our research on the discovery of how the international agricultural commodity trade related to the environmental issue and urbanization problem. In the 21st century, the emerging powers and trending of urbanization in the BRICS regions play an important role in the global agrarian-urban process. Therefore, we choose the soybean trade between China and Brazil, which are the two largest regions in the BRICS region, as our research case. In this case, we try to find out what are these two largest emerging countries’ strategies of urbanization in the soybean importing and exporting trade and the two national problems they need to face in this global agrarian-urban process.

The structure of the research is divided into three parts: (1) the theoretical stance of the research, (2) the emerging global soybean trade research, (3) and the country-based issue of urbanization research. In the global scale, we are going to give a general descriptive and quantitative analysis of the emerging international soybean trade. In the trend of transformation, what are the opportunities they face and the strategies they use when they are engaged into the global market. In the national scale, under the trend of increasement of importing and exporting, these two countries face unprecedented opportunities and challenges in the process on urbanization. In Brazil, with heavy investment of the global capital into the agricultural sector, a large amount of money flow into the construction of the national agricultural logistic system, which is helpful for the national urbanization. However, the booming expansion of soybean sourcing also creates serious problem of deforestation in this process. In China, the process of urbanization accelerated in these several decades. The upgrade of the dietary structure led to the increase consumption of the agricultural production. Meanwhile, the decline of the arable land due to the process of urbanization make the national food safety become the main conflict of China. In this global soybean trade, China solve the national conflict by shifting the consumption out of the country. We want to use the research to discover this agrarian-urban process.
The visible and invisible engagements of the two largest emerging countries in the global soybean trade.
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Kilocalorie delivery ratio of agricultural production and submarine cables. Images by the University of Minnesota Global Landscapes Initiative and TeleGeography. Montage by Benjamin Notkin and Timothy Ravis.